

ABSTRACT OF THE DISCLOSURE

A hydrogen gas generation system for vehicles and stationary power applications comprises a trio of rigid, cylindrical high pressure reservoir tanks interconnected with suitable fittings and pipelines. A water holding tank alternatively stores hydroxide solution, or transfers it to an adjacent gas generating tank, containing a plurality of tubular, aluminum fuel rods. When the holding tank is suitably pressurized, hydroxide solution is transferred into the generating tank to start a reaction with a plurality of elongated, tubular aluminum rods disposed therewithin. Conversely, the liquid contents of the generating tank can be forcibly pressured back into the holding tank to stop the gas generation reaction. High pressure hydrogen gas is humidified in the third tank prior to combustion as fuel. Humidified hydrogen is transferred via control valves to the application.